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**REMARKS**

Applicant respectfully requests reconsideration of the present application in view the reasons that follow.

Claims 1-17 are pending in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate status identifier for each.

**Claim Rejections – 35 U.S.C. § 103(a)****a. Rejection of claims 1-11 and 13-16 based on Ottenstein in view of Helms**

In section 1 of the Office Action, claims 1-11 and 13-16 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Ottenstein (U.S. Patent No. 5,270,818) in view of Helms (U.S. Patent No. 5,952,992). With regard to claims 1, 8, and 13, Applicants respectfully submit that the Office Action fails to establish a *prima facie* case of obviousness because there is no suggestion or motivation for one of ordinary skill in the art to modify Ottenstein or to otherwise combine the teachings of Ottenstein and Helms to somehow arrive at the subject matter of claims 1, 8, and 13.

The Office Action states that:

[S]ince Helms already discloses the “essence” of the invention as recited in the claims except for details regarding ambient light sensor configurations, which are fully disclosed by Ottenstein, the Office believes that the techniques of Ottenstein’s invention would be directly applicable with the computing environment of Helm’s and could be easily combined as Ottenstein uses hardware that is directly applicable to mobile or handheld computing devices such as a microprocessor and various switches.

Applicants respectfully submit that this conclusion fails to consider Ottenstein and Helms in their entirety, including disclosure that teaches away from their combination. It is improper to combine references where the references teach away from their combination. See In re Grasselli.

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713 F.2d 731, 743, 218 U.S.P.Q. 769, 779 (Fed. Cir. 1983). When a reference teaches away from the claimed invention, that teaching is strong evidence of non-obviousness. See U.S. v. Adams, 383 U.S. 39, 148 U.S.P.Q. 79 (1966); In re Royka, 490 F. 2d 981, 180 U.S.P.Q. 580 (CCPA 1974). Viewed as a whole, the disclosure of Ottenstein specifically teaches away from a combination of Ottenstein with teachings of Helms. For example, Helms discloses that:

[I]t is apparent that a user could significantly increase the runtime between battery changes ... by taking advantage of ambient light conditions that increase the visibility of the LCD, that is, low ambient light, and decreasing the brightness level of the LCD whenever the PC is being operated in such lighting conditions.

Col. 1, lines 43-49. Helms further states that “a technical advantage achieved with the invention is that it provides increased run time between battery changes by lowering the brightness level of an LCD during use in low ambient light conditions.” Col. 2, lines 36-39. Thus Helms, when viewed as a whole, teaches the advantages of using its disclosed invention in low ambient light conditions to minimize power consumption and increase runtime between battery changes, and is specifically designed to take advantage of low ambient light conditions rather than to address bright ambient lighting conditions.

In contrast, Ottenstein teaches that “[t]he auto brightness control of the present invention is designed to automatically adjust brightness to maintain a constant contrast over changes in the reflected ambient light.” Col. 3, lines 16-19. Ottenstein discloses that “the present invention ... provides compensation for the effects of sunlight in an avionics cockpit display.” Col. 1, lines 40-41). Ottenstein specifically states further that “the automatic brightness control need not and should not operate at low ambient light levels, say less than 10% of maximum.” Col. 3, line 68 – col. 4, line 2. Thus, Ottenstein is specifically designed to operate in an environment of and address the effects of bright ambient lighting conditions. While Helms specifically teaches the advantages of using its disclosed invention in low ambient light conditions, Ottenstein, viewed as a whole, specifically teaches away from such usage by stating to the contrary that its disclosed

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invention should not be used at low ambient light levels and placing limits on operation at a particular lighting level.

In response to Applicants' arguments filed on August 17, 2005 the Office Action states that "Ottenstein performs his invention, nonetheless, within a low ambient light environment" and that "Ottenstein does in fact operate upon low ambient light, the low ambient light level required to be greater than or equal to 10% of maximum." The Office Action further states that "since Applicant's claimed invention does not set any levels to low ambient light, the Office interprets such 10% of maximum equivalent to a low ambient light level condition." Applicants respectfully submit that, regardless of whether Applicants' claimed subject matter does or does not set levels for low ambient light, one of ordinary skill in the art would not be motivated to combine Helms with Ottenstein. Helms, viewed as a whole, teaches the advantages of using its disclosed invention in low ambient light conditions and is specifically designed to take advantage of low ambient light conditions rather than to address bright ambient lighting conditions. Ottenstein, viewed as a whole, teaches away from Helms by requiring a specific level of ambient light in which to operate. Indeed, Ottenstein should not operate below a specific level of light.

Accordingly, the combined teachings of Ottenstein and Helms, when viewed as a whole, are not sufficient to render the subject matter of claims 1, 8, and 13 *prima facie* obvious because there is no suggestion or motivation to combine the teachings of these references. See Manual of Patent Examining Procedure §§ 2141.02, 2145(X)(D)(2).

Applicants also respectfully disagree with the assertion in the Office Action that there is any sort of "essence" of the subject matter claimed in claims 1, 8, or 13 that is disclosed in Helms to any degree such that one of ordinary skill in the art would be motivated to combine the teachings of Helms, relating to laptop computers, with the teachings of Ottenstein, relating to airplane cockpit displays, in order to somehow arrive at the subject matter of claims 1, 8, or 13. Distilling the invention down to the "gist" or "thrust" of an invention disregards the requirement of analyzing the subject matter "as a whole." W.L. Gore & Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 220 U.S.P.Q. 303 (Fed. Cir. 1983), cert denied, 469 U.S. 851 (1984). The subject

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matter of claims 1, 8, and 13 is concerned with the particular problems associated with the continuously changing lighting conditions often associated with handheld computers and similar mobile electronic devices. For example, as Applicants explain in paragraph [0025] of the specification, multiple sensors on the face of a handheld computer may provide a more accurate estimate of lighting conditions because single light sensors used in handheld computers and similar mobile electronic devices may be obscured by a finger or other object or the like. Such problems are not inherent with laptop computers and are therefore not addressed in Helms. This noted difference is particularly evinced by the disclosed use of a detector on the rear of the display in Helms, which would often be obscured if employed on the rear side of a handheld computer by a hand or work surface, essentially leaving a single sensor on the front which may be obscured by the hand or object used to operate the handheld computer. Such problems are also not inherent with cockpit displays for airplanes and are therefore not addressed in Ottenstein. Thus, no such motivation exists for combining the teachings of Helms, relating to laptop computers, with the teachings of Ottenstein, relating to airplane cockpit displays.

Accordingly, Applicants request that the rejection of claims 1, 8, and 13 under 35 U.S.C. § 103(a) be withdrawn. Additionally, claims 2-7 depend from claim 1, claims 9-11 depend from claim 8, and claims 14-16 depend from claim 13, and are thus patentable over the cited combination of Ottenstein and Helms for at least the same reasons as stated above with regard to claims 1, 8 and 13, and Applicants further request that the rejection of these claims under 35 U.S.C. § 103(a) be withdrawn as well.

In addition to the reasons stated above, Applicants respectfully submit that the rejection of claim 2 should be withdrawn for at least an additional reason. To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art (see M.P.E.P. § 2143.03). The rejection of claim 2 under 35 U.S.C. § 103(a) based on the cited combination of Ottenstein in view of Helms should be withdrawn because the limitation "wherein the at least two light sensors are disposed near opposing edges of the display" as recited in the combination of elements of claim 2 is not taught or suggested by the cited combination of

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Ottenstein and Helms. The Office Action states with regard to claim 2 that "Helms also discloses the two photodetectors on opposite sides of the display (see #14' and 410 of Figure 4)." Helms, however, discloses only that photodetector 14' and photodetector 410 are on opposite sides of the lid 13,' and not that photodetector 14' and photodetector 410 are on opposing edges of LCD 12. Thus, the cited combination of Ottenstein in view of Helms does not teach or disclose the limitation "wherein the at least two light sensors are disposed near opposing edges of the display" as recited in the combination of elements of claim 2. Accordingly, Applicants request that the rejection of claim 2 under 35 U.S.C. § 103(a) be withdrawn.

**b. Rejection of claims 12 and 17 based on Ottenstein in view of Helms and further in view of Katada**

In section 2 of the Office Action, claims 12 and 17 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Ottenstein in view of Helms and further in view of Katada (U.S. Patent No. 5,933,089). With regard to claims 12 and 17, Applicants respectfully submit that the Office Action fails to establish a *prima facie* case of obviousness because there is no suggestion or motivation for one of ordinary skill in the art to modify Ottenstein or to otherwise combine the teachings of Ottenstein, Helms, and Katada to somehow arrive at the subject matter of claims 12 or 17. More specifically, there is no suggestion or motivation to combine the teachings of Ottenstein, Helms, and Katada because, viewed as a whole, the disclosure of Ottenstein specifically teaches away from a combination of Ottenstein with teachings of Helms (as discussed above), and because the proposed combination of the teachings of Ottenstein and Katada would change the principle of operation of Ottenstein.

The Office Action states that "Katada discloses the contrast being adjusted by setting the contrast adjustment signal corresponding to light detected by light sensors (see column 7, lines 8-20)." The Office Action further states that

It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the automatic display brightness adjustment techniques of Ottenstein and handheld computer display of Helms with the contrast signal generation

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techniques of Katada in order to improve the display of text onto displays operating in environments of varying lighting conditions (see columns 2-3, lines 66-5 of Katada), such as in mobile computing applications.

However, as stated above, the disclosure of Ottenstein specifically teaches away from a combination of Ottenstein with teachings of Helms. As to Katada, it teaches that "the contrast of the message displayed on the LCD 80 is automatically adjusted according to the light quantity *Pu* received by the light sensor. Col. 7, lines 50-52. Thus, viewed as a whole, Katada teaches adjusting the contrast in response to ambient light conditions.

Ottenstein, however, teaches that "[t]he essence of the invention is the concept of varying the foreground brightness in direct proportion to the ratio of ambient light levels, in order to maintain constant extrinsic contrast." Col. 2, lines 54-57 (emphasis added). Ottenstein further states that "[t]he auto brightness control of the present invention is designed to automatically adjust brightness to maintain a constant contrast over changes in the reflected ambient light." Col. 3, lines 16-19 (emphasis added). Thus, viewed as a whole, Ottenstein teaches that the essence and design of the invention are based on adjusting brightness to maintain constant contrast. To modify the teachings of Ottenstein, as the Office Action suggests, such that the contrast were adjusted in response to ambient light conditions would disregard the explicitly stated essence of the Ottenstein invention and would thus change the principle of operation under which the invention of Ottenstein was designed and intended to operate (i.e., varying the foreground brightness to maintain a constant contrast." If the proposed combination of the references would change the principle of operation of the reference being modified, the teachings of the references are not sufficient to render the claims *prima facie* obvious. See In re Ratti, 270 F.2d 810, 123 U.S.P.Q. 349 (C.C.P.A. 1959).

In response to Applicants' arguments filed August 17, 2005, the Office Action states that "Ottenstein explicitly discloses varying the contrast of the screen using the equation of line 22 which utilizing an ambient brightness level reading (see column 3, lines 24-25)" and that "[t]his shows that the contrast of the display is varied while Ottenstein's auto brightness control is

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implemented.” Applicants respectfully disagree. In the passages cited in the Office Action, Ottenstein discloses only that the equation in line 22 defines a constant contrast. Moreover, Ottenstein discloses only that the constant contrast of the equation of line 22 is set and maintained at a level defined where the foreground and brightness level and ambient brightness levels are “latched” at the last time the brightness rocker switches were operated.” Ottenstein discloses that “the last operator selected contrast will be maintained over varying ambient brightness.” Col. 4, lines 25-27. Thus, Ottenstein teaches only that once the contrast is manually set by the operator, the brightness control of Ottenstein uses the sensor feedback and equation 22 to vary the foreground brightness in direct proportion to the ratio of ambient light levels, in order to maintain constant extrinsic contrast.

Thus, the combined teachings of Ottenstein, Helms, and Katada are not sufficient to render the subject matter of claim 12 or claim 17 *prima facie* obvious because there is no suggestion or motivation to combine the teachings of these references. See Manual of Patent Examining Procedure § 2143.01. Accordingly, Applicants request that the rejection of claims 12 and 17 under 35 U.S.C. § 103(a) be withdrawn.

### Conclusion

Applicants believe that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 06-1447. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 06-1447. If any extensions of time are needed for timely acceptance of papers

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submitted herewith, Applicants hereby petition for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 06-1447.

Respectfully submitted,

Date 12/23/2005

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